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introduction of free HIT display format
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal
status data
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role
in
records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching
enhanced on STN

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FILE COVERS 1907 - 24 Jun 2009 VOL 150 ISS 26
FILE LAST UPDATED: 23 Jun 2009 (20090623/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> mechanic and (invert or inversion) and (emulsify or emulsion or emulsification)

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=> s mechanic and (invert or inversion) and (emulsify or emulsion or emulsification)

14945 MECHANIC
118140 MECHANICS
120848 MECHANIC
(MECHANIC OR MECHANICS)
8040 INVERT
989 INVERTS
8975 INVERT
(INVERT OR INVERTS)
80265 INVERSION
4294 INVERSIONS
82635 INVERSION
(INVERSION OR INVERSIONS)
1248 EMULSIFY
237 EMULSIFIES
1474 EMULSIFY
(EMULSIFY OR EMULSIFIES)
222808 EMULSION
136348 EMULSIONS
270452 EMULSION
(EMULSION OR EMULSIONS)
19297 EMULSIFICATION
40 EMULSIFICATIONS
19308 EMULSIFICATION
(EMULSIFICATION OR EMULSIFICATIONS)

L1 4 MECHANIC AND (INVERT OR INVERSION) AND (EMULSIFY OR
EMULSION OR
EMULSIFICATION)

=> d l l i b i b h i t

L1 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008: 1490722 CAPLUS Full-text

TITLE: Some possible methods for preparation of
hydrophobic

and oleophobic polymer membranes and their

use

AUTHOR(S): Drev, Darko; Panjan, Joze

CORPORATE SOURCE: IZVRS, FGK, Univ. Ljubljana, Ljubljana,

Slovenia

SOURCE: Slovenski kemijski dnevi, Maribor, Slovenia,
Sept.

25-26, 2008 (2008), POL11/1-POL11/12.

Editor(s):

Glavic, Peter; Brodnjaj-Voncina, Darinka.

Univerza v

Mariboru, Fakulteta za kemijo in kemijsko

Tehnologijo:

Maribor, Slovenia.

CODEN: 69LFFA; ISBN: 978-961-248-118-6

DOCUMENT TYPE:

Conference; (computer optical disk)

LANGUAGE:

Slovenian

AB Hydrophobic and oleophobic membrane properties are very
desirable for certain uses, giving them an advantage over other

materials. A polytetrafluoroethylene (PTFE) membrane production process is presented, revealing a min. membrane pore size of approx. 0.01 μ . It follows that such membranes are not suitable for very fine filtration uses (ultrafiltration, reverse osmosis). In addition to PTFE, polysiloxanes are also marked by enhanced hydrophobic and oleophobic properties. However, polysiloxane membranes suffer from severe production process limitations as their production has thus far not been possible via classical phase inversion processes. Thus, several oleophobic and hydrophobic coatings based on mechanic foams and emulsions have been introduced as a crude replacement for expensive PTFE membranes. These require the introduction of a suitable hydrophobic or oleophobic material such as fluorocarbon into the polymer matrix. However, the degree of the resulting membrane openness and pore size are not comparable to those of PTFE membranes. In this paper, I present a new production process for asym polysiloxane membranes that provides the basis of a solution to this problem. This process could allow the creation of very fine asym polysiloxane membranes that would enjoy a large comparative advantage to polymers existing today.

=> d 1-4 i b i b h i t

L1 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1490722 CAPLUS Full-text
 TITLE: Some possible methods for preparation of
 hydrophobic and oleophobic polymer membranes and their
 use
 AUTHOR(S): Drev, Darko; Panjan, Joze
 CORPORATE SOURCE: IZVRS, FGG, Univ. Ljubljana, Ljubljana,
 Slovenia
 SOURCE: Slovenski kemijski dnevi, Maribor, Slovenia,
 Sept. 25-26, 2008 (2008), POL11/1-POL11/12.
 Editor(s): Glavic, Peter; Brodnjaj-Voncina, Darinka.
 University: Maribor u, Fakulteta za kemijo in kemijsko
 Tehnologijo: Maribor, Slovenia.
 CODEN: 69LFFA; ISBN: 978-961-248-118-6
 DOCUMENT TYPE: Conference; (computer optical disk)
 LANGUAGE: Slovenian
 AB Hydrophobic and oleophobic membrane properties are very
 desirable for certain uses, giving them an advantage over other
 materials. A polytetrafluoroethylene (PTFE) membrane production
 process is presented, revealing a min. membrane pore size of
 approx. 0.01 μ . It follows that such membranes are not suitable
 for very fine filtration uses (ultrafiltration, reverse
 osmosis). In addition to PTFE, polysiloxanes are also marked by
 enhanced hydrophobic and oleophobic properties. However,
 polysiloxane membranes suffer from severe production process

limitations as their production has thus far not been possible via classical phase inversion processes. Thus, several oleophobic and hydrophobic coatings based on mechanic foams and emulsions have been introduced as a crude replacement for expensive PTFE membranes. These require the introduction of a suitable hydrophobic or oleophobic material such as fluorocarbon into the polymer matrix. However, the degree of the resulting membrane openness and pore size are not comparable to those of PTFE membranes. In this paper, I present a new production process for asym polysiloxane membranes that provides the basis of a solution to this problem. This process could allow the creation of very fine asym polysiloxane membranes that would enjoy a large comparative advantage to polymers existing today.

L1 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:57317 CAPLUS Full-text

DOCUMENT NUMBER: 136:264858

TITLE: Physico-chemical principles of emulsion formulation and utilisation

AUTHOR(S): Babak, Valery G

CORPORATE SOURCE: INEOS RAS, Moscow, Russia

SOURCE: World Surfactants Congress, 5th, Firenze, Italy, May

European des

29-June 2, 2000 (2000), 582-589. Comité

Organiques:

Agents de Surface et leurs Intermediaires

Brussels, Belg.

CODEN: 69BYUW

DOCUMENT TYPE:

optical disk)

Conference; General Review; (computer

LANGUAGE:

English

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

REFORMAT

TI Physico-chemical principles of emulsion formulation and utilisation

AB A review on the fundamental concepts of the colloid science and the physicochem mechanics involved in the formation and practical application of emulsions. The principles according to which the functional properties of emulsions (aggregate stability, rheol., wetting and adhesion, breaking, and phase inversion) are determined by the energetics and the hydrodynamics of microscopic emulsion films (MEF) between liquid droplets, are systematically developed and illustrated by many examples of different applications of emulsions. With surface tension and disjoining pressure in MEF as well as microrheol. properties of such films being controlled by physicochem parameters (pH and salinity, polarity of liquid phases, temperature, mol. properties of surfactants and their concentration, concentration of polymers, etc.), it is seen how the modern theories of steric stabilization, physicochem hydrodynamics, and thermodyn. of thin liquid films allows us to formulate emulsions with optimal properties and to predict the behavior of emulsions in usage.

ST review emulsion property utilization
 IT Emulsification
 (in physicochem principles of emulsion formulation and utilization)
 IT Emulsions
 (physicochem principles of emulsion formulation and utilization)

L1 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:58054 CAPLUS Full-text
 DOCUMENT NUMBER: 120:58054
 ORIGINAL REFERENCE NO.: 120:10509a,10512a
 TITLE: Rapid destabilization and dewatering of desalter

emulsions by inversion of the emulsion from oil continuous to water continuous emulsion

AUTHOR(S): Anon.
 CORPORATE SOURCE: UK
 SOURCE: Research Disclosure (1993), 355, 759 (No. 35569)

DOCUMENT TYPE: CODEN: RSDSBB; ISSN: 0374-4353
 LANGUAGE: Journal; Patent
 FAMILY ACC. NUM COUNT: English
 PATENT INFORMATION: 1

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
19931110	RD 355069		19931110	RD 1993-355069
19931110				RD 1993-355069

TI Rapid destabilization and dewatering of desalter emulsions by inversion of the emulsion from oil continuous to water continuous emulsion

AB Desalting is a purifying process to remove water, salts, and dispersed inorg. particles from the crude. By removal of these materials a cleaner crude is presented for refinery processing. This not only prevents many costly problems due to fouling and corrosion of refinery equipment, but leads to more efficient processing and better product quality. The actual mechanics of the desalting process entails the addition of about 3-5% of fresh or processed water to the crude oil charge stream. The oil and water phases are intimately mixed, then separated. As the water phase is separated in the desalter vessel, it carries off the contaminating salts and other materials. Unfortunately, the separation process is not 100% complete and typically a layer of interface exists in between the oil and water phases. This interface is referred to as "rag level" which is a very stable water in crude oil emulsion. The formation of these petroleum emulsions in the crude desalter units poses serious economical and environmental concerns to the refining operation.

ST petroleum emulsion desalter destabilization dewatering
 IT Petroleum refining

(desalting, by emulsion inversion)
 IT Petroleum refining
 (dewatering, of desalter emulsions, by emulsion inversion)
 IT Petroleum refining
 (emulsion breaking, desalting and dewatering in)
 IT Petroleum
 RL: USES (Uses)
 (emulsions, destabilization and dewatering of desalter, by emulsion inversion)

L1 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1981:198010 CAPLUS Full-text

DOCUMENT NUMBER: 94:198010

ORIGINAL REFERENCE NO.: 94:32327a, 32330a

TITLE: Change of morphology of a liquid-liquid dispersion as

a stochastic process

AUTHOR(S): Ross, Sydney; Kornbrekke, Ralph E.

CORPORATE SOURCE: Chem. Dep., Rensselaer Polytech. Inst., Troy, NY,

12181, USA

SOURCE: Journal of Colloid and Interface Science
 (1981),

81(1), 58-68

CODEN: JCI SA5; ISSN: 0021-9797

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new phenomenon: that the morphol. of an unstabilized liq-liq. dispersion is predicted by a statistical law rather than by a causal law is reported. For any given volume ratio of the 2 liqs. only a probability of obtaining 1 type of dispersion rather than the other can be determined. The inversion point is defined as the volume ratio, all other variables being constant, at which the probabilities of obtaining the 2 morphol. types of dispersion are equal. For a given set of conditions the probability, as determined statistically, is a smooth continuous function of the composition, conforming to a sym distribution of probabilities on either side of the inversion point. These effects are demonstrated with a system of 3 liquid components in which a miscibility gap occurs between 2 liq phases. The inversion point manifests a continuous trend toward a 50:50 volume ratio as the 2 conjugate solns. of the system approach identity of phys. properties at their temperature-invariant point. An application of statistical mechanics, in which the degree of mech. agitation assumes the role of temperature, provides a theory that is confirmed by its agreement with the observed facts.

ST liq liq dispersion morphol change; emulsion morphol change
 stochastic process

IT Disperse systems
 Emulsions

(morphol. change of, stochastic process of)

IT Stochastic process
 (of emulsion morphol. change)

=> FILE STNGUI DE
COST IN U. S. DOLLARS
TOTAL

SINCE FILE
ENTRY

SESSION
FULL ESTIMATED COST
31.30

31.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
TOTAL

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liles d/au or saldjeno m/au or thomas x/au
'AU' IS NOT A VALID FIELD CODE

0 BOTT R/AU
0 BRANDSTADT K/AU
0 KOLLAR C/AU
0 LANE T/AU
0 LILES D/AU
0 SALDJENO M/AU
0 THOMAS X/AU

L2
T/AU OR LILE
S D/AU OR SALDJENO M/AU OR THOMAS X/AU

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COST IN U. S. DOLLARS
TOTAL

SINCE FILE
ENTRY

SESSION
FULL ESTIMATED COST
31.44

0.14

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
TOTAL

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SESSION
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FILE COVERS 1907 - 24 Jun 2009 VOL 150 ISS 26
FILE LAST UPDATED: 23 Jun 2009 (20090623/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

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liles d/au or saldjeno m/au or thomas x/au

43 BOTT R/AU
0 BRANDSTADT K/AU
0 KOLLAR C/AU
9 LANE T/AU
6 LILES D/AU
0 SALDJENO M/AU
79 THOMAS X/AU

L3 137 BOTT R/AU OR BRANDSTADT K/AU OR KOLLAR C/AU OR LANE
T/AU OR LILE
S D/AU OR SALDJENO M/AU OR THOMAS X/AU

=> s l3 and (emulsion or inversion or phase inversion or active or
silicone or controlled release or sustained release or substrate)

222808 EMULSION
136348 EMULSIONS
270452 EMULSION
(EMULSION OR EMULSIONS)
80265 INVERSION
4294 INVERSIONS
82635 INVERSION
(INVERSION OR INVERSIONS)

L4 11 L3 AND (EMULSION OR INVERSION OR PHASE INVERSION OR
ACTIVE OR
 SILICONE OR CONTROLLED RELEASE OR SUSTAINED RELEASE OR
SUBSTRATE)

CORPORATE SOURCE: B. E. ; Bott, R
Genencor, Palo Alto, CA, 94304, USA

SOURCE: Act a Crystallographica, Section F:
 Structural Biology and Crystallization Communications (2007),
 F63(4), 266-269
 CODEN: ACSFCL; ISSN: 1744-3091
 URL:
<http://journals.iucr.org/f/issues/2007/04/00/fw5128/fw5128.pdf>
 PUBLISHER: Blackwell Publishing Ltd.
 DOCUMENT TYPE: Journal; (online computer file)
 LANGUAGE: English
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 REFORMAT

AU Shaw, A.; Saldajeno, M. L.; Kolkman, M. A. B.; Jones, B. E.;
 Bott, R.
 AB The crystal structure of cellulomonadin, a secreted chymotrypsin
 from the alkalophile, *C. bogoriensis*, was determined using data
 to 1.78 Å resolution and refined to a crystallog. R factor of
 0.167. The crystal structure revealed a large P1 substrate
 specificity pocket, as expected for chymotrypsins. The
 structure was compared with close structural homologs. This
 comparison did not reveal clear reasons for the alkali tolerance
 of the enzyme, but the greater compactness of the structure and
 lowered H-bonding may play a role.

IT Enzyme functional sites
 (active; of cellulomonadin, a bacterial chymotrypsin from
Cellulomonas bogoriensis)

L4 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:764936 CAPLUS Full-text
 DOCUMENT NUMBER: 142:43101
 TITLE: AFCEE/ ESTCP technical protocol for enhanced
 reductive dechlorination using soluble carbohydrates
 AUTHOR(S): Lutes, C.; D'Amato, V.; Liles, D.; Hansen,
 M.; Palmer, P.; Hansen, J.
 CORPORATE SOURCE: Arcadis, Durham, NC, USA
 SOURCE: In Situ and On-Site Bioremediation,
 Proceedings of the International In Situ and On-Site
 Bioremediation Symposium 7th, Orlando, FL, United States,
 June 2-5, 2003 (2004), 210-216. Editor(s): Magar,
 Victor S.; Kelley, Mark E. Battelle Press: Columbus,
 Ohio.
 CODEN: 69FRQR; ISBN: 1-57477-139-6
 DOCUMENT TYPE: Conference; (computer optical disk)
 LANGUAGE: English
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

AU Lutes, C.; D'Amato, V.; Liles, D.; Hansen, M.; Palmer, P.; Hansen, J.

AB A protocol document for enhanced reductive dechlorination of chlorinated aliphatic compds. (CAHs) using soluble carbohydrates (Suthersan et al., 2002) has been prepared under funding from ESTCP and AFCEE. The protocol is based on our experience at field pilot and full scale at more than 130 com and federal sites and on the experiences of others as presented in the literature. A detailed dataset collected from demonstration sites at Hanscom and Vandenberg Air Force Bases contributed to the development of the protocol. Detailed engineering guidance for implementation of the technol. using a variety of food grade soluble carbohydrate substrates is presented. The protocol was modeled on the widely used AFCEE protocols for natural attenuation and bioventing, and includes guidance on the following: • Site selection • Selection of a suitable carbon substrate for a given set of site conditions • Delivery system design, including allowances for heterogeneity • Quant. factors to consider in calculating the initial carbon substrate dose • Process monitoring feedback that can be used to optimize substrate delivery • System modifications to address site-specific issues of pH, salinity, etc.

L4 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:472422 CAPLUS Full-text

DOCUMENT NUMBER: 137:274947

TITLE: A novel combination of two classic catalytic schemes

AUTHOR(S): Shaw, A.; Bott, R.; Vonrhein, C.; Bricogne, G.; Power, S.; Day, A. G

CORPORATE SOURCE: Genencor International Inc., Palo Alto, CA, 94304, USA

SOURCE: Journal of Molecular Biology (2002), 320(2), 303-309

CODEN: JMOBAK; ISSN: 0022-2836

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

AU Shaw, A.; Bott, R.; Vonrhein, C.; Bricogne, G.; Power, S.; Day, A. G

AB The crystal structure of an alk. Bacillus cellulase catalytic core, from glucoside hydrolase family 5, reveals a novel combination of the catalytic machinery of two classic textbook enzymes. The enzyme has the expected two glutamate residues in close proximity to one another in the active-site that are typical of retaining cellulases. However, the proton donor, glutamate 139 is also unexpectedly a member of a serine-histidine-glutamate catalytic triad, forming a novel combination of catalytic machineries. Structure and sequence anal. of

glucoside hydrolase family 5 reveal that the triad is highly conserved, but with variations at the equivalent of the serine position. The authors speculate that the purpose of this novel catalytic triad is to control the protonation of the acid/base glutamate, facilitating the first step of the catalytic reaction, protonation of the substrate, by the proton donor glutamate. If correct, this will be a novel use for a catalytic triad.

ST cellulase 103 active site crystal structure *Bacillus*
 IT *Bacillus* (bacterium genus)
 (active site Glu-Glu and Ser-His-Glu triad combination in cellulase 103 of *Bacillus*)
 IT Enzyme functional sites
 (active; active site Glu-Glu and Ser-His-Glu triad combination in cellulase 103 of *Bacillus*)
 IT Conformation
 (protein; active site Glu-Glu and Ser-His-Glu triad combination in cellulase 103 of *Bacillus*)
 IT 9012-54-8, Cellulase
 RL: PRP (Properties)
 (103; active site Glu-Glu and Ser-His-Glu triad combination in cellulase 103 of *Bacillus*)
 IT 56-45-1, L-Serine, biological studies 56-86-0, L-Glutamic acid,
 biological studies 71-00-1, L-Histidine, biological studies
 RL: BSU (Biological study, unclassified); PRP (Properties); BCL (Biological study)
 (active site Glu-Glu and Ser-His-Glu triad combination in cellulase 103 of *Bacillus*)

L4 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:720906 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 123:140054

ORIGINAL REFERENCE NO.: 123:24853a, 24856a

TITLE: Distribution of carboxypeptidase M on
 Lymphoid and

myeloid cells parallels the other zinc-
 dependent

proteases CD10 and CD13

AUTHOR(S): de Saint-Viss, B.; Cupillard, L.; Pandrau-
 Garcia, D.;

Ho, S.; Renard, N.; Grouard, G.; Duvert, V.;
 Thomas, X.; Galizzi, J. P.; et al.

CORPORATE SOURCE: Laboratory Immunological Research, Schering-
 Plough,

Dardilly, Fr.

SOURCE: Blood (1995), 86(3), 1098-105

CODEN: BLOOAW ISSN: 0006-4971

PUBLISHER: Saunders

DOCUMENT TYPE: Journal

LANGUAGE: English

AU de Saint-Viss, B.; Cupillard, L.; Pandrau-Garcia, D.; Ho, S.;
 Renard, N.;

Grouard, G.; Duvert, V.; Thomas, X.; Galizzi, J. P.; et al.

AB Monoclonal antibody (MAb) M27 was generated after immunization
 of mice with the human B-lineage acute lymphoblastic leukemia
 cell line Pre-ALP. Under reducing conditions, MAb M27

precipitated a 60-kD surface-membrane mol. from Pre-ALP cells. Expression cloning of Pre-ALP cDNA showed that M27 recognizes carboxypeptidase M (CPM), a cell-surface, zinc-dependent protease known to cleave off basic C-terminal amino acids from peptide hormones. Using M27 antibody, CPM was detected only at discrete B lymphocyte developmental stages, namely on committed precursors and on germinal center cells. CPM was also expressed on mature T cells, mainly after activation. These results provide the first description of a carboxypeptidase on lymphoid cells. In addition, CPM was found on granulocytes and monocytes, but not on their progenitors. Strikingly, CPM was present only on CD38+ cells, irrespectively of lineage affiliation. Of interest, CPM displayed a largely overlapping distribution with the CD10 and CD13 peptidases, with which it shares common substrates (enkephalins, bradykinin). Collectively, the present data show a previously unrecognized distribution pattern of CPM on lymphoid and myeloid cells and suggest that CPM may cooperate with CD10 and CD13 to regulate biol. activity of peptide hormones on leukocytes.

L4 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:657239 CAPLUS [Full-text](#)
DOCUMENT NUMBER: 123:62923
ORIGINAL REFERENCE NO.: 123:11149a,11152a
TITLE: Determination of thickness maps of thin coatings by

EDS EPMA
AUTHOR(S): Benhayoune, H.; Jbara, O.; Thomas, X.; Cazaux, J.
CORPORATE SOURCE: LASSI, Faculte Sciences, Reims, 51062, Fr.
SOURCE: X-Ray Spectrometry (1995), 24(3), 147-51
CODEN: XRSPAX; ISSN: 0049-8246
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AU Benhayoune, H.; Jbara, O.; Thomas, X.; Cazaux, J.

AB A new exptl. procedure for the measurement of the thickness of thin coatings on substrates is presented. Based on the exptl. determination of the electron backscattering coefficient η (via the measurement of the elec. current of the correctly polarized specimen holder), the number of reference specimens to be used for the calibration during measurements can be reduced. Thickness maps free of artifacts associated with local changes in the substrate composition illustrate the proposed methods.

IT 7440-50-8, Copper, properties 11099-19-7

RL: PRP (Properties)
(substrate; determination of thickness maps of thin coatings by EDS
EPMA)

L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:503292 CAPLUS [Full-text](#)
DOCUMENT NUMBER: 119:103292
ORIGINAL REFERENCE NO.: 119:18436h,18437a
TITLE: Inhibition of endotoxin-mediated activation

of

endothelial cells by a perfluorocarbon emulsion

AUTHOR(S):
CORPORATE SOURCE:
SOURCE:
Immobilization

Lane, T.; Smith, D.; Wanciewicz, E.; Funk, R.
Sch. Med., UCSD, La Jolla, CA, USA
Biomaterials, Artificial Cells, and

Biotechnology (1993), 21(2), 163-72
CODEN: BACBEU; ISSN: 1055-7172

DOCUMENT TYPE:

Journal

LANGUAGE:

English

TI Inhibition of endotoxin-mediated activation of endothelial cells
by a

perfluorocarbon emulsion

AU Lane, T.; Smith, D.; Wanciewicz, E.; Funk, R.

AB Endothelial cell (EC) activation plays a key role in the inflammatory response by promoting the margination of leukocytes in inflamed loci. Augmented leukocyte margination to activated EC is mediated by the increased display of leukocyte adhesion mols. on EC surface membranes. The biocompatibility of synthetic oxygen-transport fluids is intimately linked to EC function, since one of the first tissues encountered by such fluids is the vascular endothelium. The effect of a phospholipid-based perfluorocarbon emulsion containing 90% w/v perfluorooctyl bromide (perflubron, PFOB) on EC activation was investigated. Human umbilical vein EC (HUVEC) were activated by interleukin-1 (IL-1), tumor necrosis factor (TNF), or E. coli endotoxin (LPS) in the presence or absence of up to 20% w/v perflubron. HUVEC activation was monitored by the extent of up-regulation of expression of intracellular adhesion mol.-1 (ICAM) and endothelial-leukocyte adhesion mol.-1 (ELAM). Exposure of HUVEC to perflubron did not alter the up-regulation of ICAM or ELAM in response to IL-1 or TNF. However, at 10% perflubron ICAM up-regulation in response to LPS was inhibited by 95%. ELAM expression was similarly affected. The concentration of perflubron required to diminish LPS-induced up-regulation by 50% was 6.0%. The inhibitory effect of 10% perflubron was overcome by >1 µg/mL LPS and the inhibitory effect was attenuated by adding perflubron to the cultures after LPS. In agreement with the above, addnl. expts. showed that incubation of LPS with perflubron prevented LPS-induced stimulation of TNF synthesis by a murine macrophage (RAW) cell line. It is concluded that: (1) perflubron neither activates HUVEC nor interferes with HUVEC activation by IL-1 or TNF, (2) perflubron prevented HUVEC activation by LPS in a dose and time-dependent manner, (3) perflubron prevented LPS-induced activation of more than one cell line. Taken together, the data suggest that perflubron may bind and sequester limited concns. of LPS. Whether this property of perflubron also occurs upon in vivo infusion and whether it might be clin. useful in preventing some of the adverse effects of endotoxemia are unknown.

ORIGINAL REFERENCE NO.: 117:21253a,21256a
TITLE: Preliminary results on multiple angular
detection
Auger spectroscopy
AUTHOR(S): Cazaux, J.; Bardoux, T.; Mbuze, D.; Patat,
J. M;
Salace, G; Thomas, X; Toth, J.
CORPORATE SOURCE: LASSI, Fac. Sci., Reims, 51062, Fr.
SOURCE: Surface and Interface Analysis (1992), 19(1-
12), 197-9

CODEN: SIANDQ ISSN: 0142-2421
DOCUMENT TYPE: Journal
LANGUAGE: English
AU Cazaux, J.; Bardoux, T.; Mbuze, D.; Patat, J. M; Salace, G;
Thomas, X; Toth, J.

ST Auger electron spectroscopy multiple angle detection; carbon
detection
aluminum film silicon Auger; aluminum detection simultaneous
silicon
substrate Auger; silicon detection simultaneous aluminum film
Auger; surface structure detn multiple angle Auger

IT Surface structure
(determination of, of aluminum layer/silicon substrate
structure by
Auger electron spectroscopy with multiple angle detection)

IT 7440-44-0, Carbon, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detection of, as contaminant on aluminum layer/silicon
substrate structure by Auger electron spectroscopy with
multiple angle detection)

IT 7440-21-3, Silicon, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detection of, simultaneously with aluminum in aluminum
overlayer/silicon substrate structure by Auger electron
spectroscopy with multiple angle detection)

IT 7429-90-5, Aluminum, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detection of, simultaneously with silicon in aluminum
layer/silicon
substrate by Auger electron spectroscopy with multiple angle
detection)

L4 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:463476 CAPLUS Full-text
DOCUMENT NUMBER: 115:63476
ORIGINAL REFERENCE NO.: 115:10735a,10738a
TITLE: Scatter diagram application to thickness
mapping in
thin film microanalysis

AUTHOR(S): Cazaux, J.; Jbara, O.; Thomas, X.
CORPORATE SOURCE: Lab. Anal. Solides, Surf. Interfaces, Fac.
Sci.,
Reims, 51062, Fr.
SOURCE: Institute of Physics Conference Series
(1990),
98(EMAG MICRO 89, Vol. 1), 323-6

CODEN: IPCSEP; ISSN: 0951-3248

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AU Cazaux, J.; Jbara, O.; Thomas, X.

AB Multielemental coatings on bulk substrates of foreign compn. are investigated by scanning energy-dispersive x-ray emission microscopy and the results are analyzed using the Auger formalism. The application of scatter diagram technique on profiles (or images) allows to obtain not only characteristic profiles (or images) related to the elemental composition of the overlayers (and the various phases composing them) but also profiles (or images) related to partial or total thickness change (such as isothickness imaging) thus adding a new dimension (the thickness) to the capability of this technique. This method may be applied to EELS and energy-dispersive x-ray anal. of unsupported thin films in a scanning transmission electron microscope.

L4 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1983:2205 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 98:2205

ORIGINAL REFERENCE NO.: 98:407a, 410a

TITLE: Three-dimensional structure of the complex of the

Rhizopus chinensis carboxyl proteinase and pepstatin

at 2.5 Å resolution

AUTHOR(S): Bott, R.; Subramanian, E.; Davies, D. R.

CORPORATE SOURCE: Lab. Mol. Biol., Natl. Inst. Arthritis, Diabet es, Dig.

Kidney Dis., Bethesda, MD, 20205, USA

SOURCE: Biochemistry (1982), 21(26), 6956-62

CODEN: BICHAW ISSN: 0006-2960

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AU Bott, R.; Subramanian, E.; Davies, D. R.

AB An x-ray diffraction anal. was carried out at 2.5-Å resoln. of the 3-dimensional structure of R. chinensis carboxyl proteinase complexed with pepstatin. The resulting model of the complex supports the previously published hypothesis that statine (3-hydroxy-4-amino-6-methylheptanoic acid) approaches an analog of the transition state for catalysis. The way in which pepstatin binds to the enzyme can be extended to provide a model of substrate binding and a model of the transition-state complex. This in turn has led to a proposed mechanism of action based on general acid-base catalysis with no covalent intermediates. These predictions are in general agreement with kinetic studies using several carboxyl proteinases, which together with their sequence homol. and their common 3-dimensional structures suggest that this mechanism can be extrapolated to all carboxyl proteinases.

L4 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:513844 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 87:113844

ORIGINAL REFERENCE NO.: 87:18057a, 18060a
 TITLE: Crystallographic study of turkey egg-white lysozyme and its complex with a disaccharide
 AUTHOR(S): Sarma, R.; Bott, R
 CORPORATE SOURCE: Dep. Biochem, State Univ. New York, Stony Brook, NY, USA
 SOURCE: Journal of Molecular Biology (1977), 113(3), 555-65
 CODEN: JMOBAK; ISSN: 0022-2836
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AU Sarma, R.; Bott, R
 AB The crystal structure of turkey egg-white lysozyme (I) detd. by the mol. replacement method at 5 Å resolution, was refined to 2.8 Å resolution and a model was built to fit the electron d. A comparison of the coordinates with those of hen I indicate a root-mean-square deviation of 1.6 Å for all the main-chain and side-chain atoms. A significant difference is observed in the region of residues 98-115. The mols. are packed in this crystal form with the entire length of the active cleft positioned in the vicinity of the crystallog. 6-fold axis and is not blocked by neighboring mols. A difference electron-d. map calculated between crystals of turkey I soaked in N-acetylglucosamyl-N-acetylmuramic acid and the native I crystals showed a strong pos. peak at subsite C, a weak pos. peak at subsite D, and 2 strong peaks that correspond to the subsite E and a new subsite F'. This new subsite F' is different from the subsite F predicted for the 6th saccharide from model building with hen I. The interactions between the saccharides bound at subsites E and F' and the I mols. are discussed.

L4 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1976:573483 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 85:173483
 ORIGINAL REFERENCE NO.: 85:27713a, 27716a
 TITLE: Crystal structure of turkey egg-white lysozyme: results of the molecular replacement method at 5 Å resolution
 AUTHOR(S): Bott, R.; Sarma, R.
 CORPORATE SOURCE: Dep. Biochem, State Univ. New York, Stony Brook, NY, USA
 SOURCE: Journal of Molecular Biology (1976), 106(4), 1037-46
 CODEN: JMOBAK; ISSN: 0022-2836
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AU Bott, R.; Sarma, R.
 AB Turkey egg-white lysozyme (I) differs from hen egg-white I in its primary structure in 7 of the 129 residues. The rotational and translational parameters were determined relating the known coordinates of hen egg-white I to the turkey I. The rotational

parameters were determined using the rotation function; the translational parameters were determined by placing the properly rotated mol. systematically at all positions within the unit cell and searching for those positions producing few intermol. contacts between the α -C atoms of 1 mol. and all its neighbors. These parameters were refined by minimizing the conventional R factor between observed and calculated structure amplitudes. The final rotational and translational parameters give an R value of 46.7% for reflections with d spacings between 6 Å and 12 Å and have 7 intermol. contacts closer than 5 Å between the α -C atoms of 1 mol. and all its neighbors. An electron d. map was calculated at 5 Å resolution; the packing of the mols. in this form appears to present the entire length of the active cleft in the vicinity of the crystallographic 6-fold axis and does not appear to be blocked by neighboring mols.

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L1 4 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON MECHANIC AND
(INVERT OR INVERSION) AND (EMULSIFY OR EMULSION OR
EMULSIFICATION)
D L1 IBI B HIT
D 1-4 IBI B HIT

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OR BRANDSTADT K/ AU OR KOLLAR C/ AU OR LANE T/ AU OR LILES
D/ AU OR
SALDJENO M/ AU OR THOMAS X/ AU

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L3 137 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON BOTT R/ AU OR
BRANDSTADT K/ AU OR KOLLAR C/ AU OR LANE T/ AU OR LILES D/ AU OR
SALDJENO M/ AU OR THOMAS X/ AU

L4 11 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON L3 AND
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assignment		information
NEWS 6	APR 26	USPATFULL and USPAT2 enhanced with patent
		assignment/reassignment information
NEWS 7	APR 28	CAS patent authority coverage expanded
NEWS 8	APR 28	ENCOMPL1T/ENCOMPL1T2 search fields enhanced
NEWS 9	APR 28	Limits doubled for structure searching in CAS
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NEWS 11	MAY 11	STN on the Web enhanced
NEWS 12	MAY 11	BEILSTEIN substance information now available on
		STN Easy
NEWS 13	MAY 14	DGENE, PCTGEN and USGENE enhanced with increased
		limits for exact sequence match searches and
		introduction of free HIT display format
NEWS 14	MAY 15	INPADOCDB and INPAFAMDB enhanced with Chinese legal
		status data
NEWS 15	MAY 28	CAS databases on STN enhanced with NANO super role
in		records back to 1992
NEWS 16	JUN 01	CAS REGISTRY Source of Registration (SR) searching
		enhanced on STN
NEWS 17	JUN 26	NUTRACEUT and PHARMAML no longer updated

NEWS 18 JUN 29 IMSCOPROFILE now reloaded monthly

NEWS 19 JUN 29 EPFULL adds SLART to AB, MCLM and TI fields

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USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

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=> s emulsion and phase inversion and silicone and protein

222917 EMULSION
136400 EMULSIONS
270585 EMULSION
(EMULSION OR EMULSIONS)
1996106 PHASE
405666 PHASES
2166126 PHASE
(PHASE OR PHASES)
80302 INVERSION
4296 INVERSIONS
82673 INVERSION
(INVERSION OR INVERSIONS)
4464 PHASE INVERSION
(PHASE(W) INVERSION)
118599 SILICONE
66806 SILICONES
156651 SILICONE
(SILICONE OR SILICONES)
2322978 PROTEIN
1641873 PROTEINS
2716520 PROTEIN
(PROTEIN OR PROTEINS)

L1 0 EMULSION AND PHASE INVERSION AND SILICONE AND PROTEIN

=> s emulsion and phase inversion

222917 EMULSION
136400 EMULSIONS
270585 EMULSION
(EMULSION OR EMULSIONS)
1996106 PHASE
405666 PHASES
2166126 PHASE
(PHASE OR PHASES)
80302 INVERSION
4296 INVERSIONS
82673 INVERSION
(INVERSION OR INVERSIONS)
4464 PHASE INVERSION
(PHASE(W) INVERSION)

L2 968 EMULSION AND PHASE INVERSION

=> s l2 and silicone

118599 SILICONE
66806 SILICONES
156651 SILICONE
(SILICONE OR SILICONES)

L3 35 L2 AND SILICONE

=> d 20-30 i b i b h i t a b s

L3 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:246507 CAPLUS Full-text

DOCUMENT NUMBER: 134:267787

TITLE: Method for forming a silicone coating on a substrate

INVENTOR(S): Aguadi sch, Louis Michel Jacques; Font a, Frederique;

PATENT ASSIGNEE(S): Mallard, Claire
Dow Corning France S. A., Fr.

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM COUNT: 1

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
20000918	EP 1088540	A1	20010404	EP 2000-308128
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
20000927	JP 2001131021	A	20010515	JP 2000-294613
19990929	PRIORITY APPLN. INFO:		EP 1999-402378	A
TI	Method for forming a silicone coating on a substrate			
AB	The method is done by depositing a water-in-silicone oil emulsion comprising 1 to 10% of a surfactant, 9 to 65% of a volatile silicone fluid and 28 to 90% of an aqueous phase onto a substrate. Shear stress is then applied to the composition to distribute the composition on the substrate. As the shear stress is applied, the emulsion breaks and inverts to a silicone coating on the substrate. This method provides a novel method of delivering a silicone coating on a substrate. It also provides a delivery vehicle for a variety of water soluble and oil soluble actives.			
ST	silicone emulsion coating phase inversion; coating process silicone emulsion coating phase inversion; water in oil silicone emulsion coating phase inversion			
IT	Coating process (method for forming a silicone coating on a substrate)			
IT	Polysiloxanes, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (method for forming a silicone coating on a substrate)			
IT	541-02-6, Decamethyl cycl opent asil oxane 28349-86-2, Oct amet hyl tri sil oxane polymer 31900-57-9D, Di met hyl sil anedi ol polymer,			

tri methyl silyl - terminated
RL: POF (Polymer in formulation); TEM (Technical or engineered
material
use); USES (Uses)

(method for forming a silicone coating on a substrate)
IT 42557-10-8, Tri methyl silyl - terminated polydi methyl siloxane
RL: PRP (Properties); TEM (Technical or engineered material
use); USES
(Uses)

(method for forming a silicone coating on a substrate)
IT 145686-74-4, Lauryl methicone copolyol
RL: MOA (Modifier or additive use); USES (Uses)
(surfactant; method for forming a silicone coating on a
substrate)

AB The method is done by depositing a water-in-silicone oil
emulsion comprising 1 to 10% of a surfactant, 9 to 65% of a
volatile silicone fluid and 28 to 90% of an aqueous phase onto a
substrate. Shear stress is then applied to the composition to
distribute the composition on the substrate. As the shear
stress is applied, the emulsion breaks and inverts to a silicone
coating on the substrate. This method provides a novel method
of delivering a silicone coating on a substrate. It also
provides a delivery vehicle for a variety of water soluble and
oil soluble actives.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES

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L3 ANSWER 21 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:73392 CAPLUS Full-text

DOCUMENT NUMBER: 134:136444

TITLE: Method of preparing microemulsions of amino
silicone fluids and MQ resin mixtures

INVENTOR(S): Berthiaume, Marianne D.; Merrifield, James
H.; Riccio,

Donna A.

PATENT ASSIGNEE(S): General Electric Company, USA

SOURCE: U.S., 12 pp., Cont.-in-part of U.S.

5,578,298.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM COUNT:

3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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US 6180117	B1	20010130	US 1995-385293
19950210			
US 5683625	A	19971104	US 1994-250124
19940527			
US 5578298	A	19961126	US 1994-321640
19941011			
GB 2289686	A	19951129	GB 1995-9168

19950505	GB 2289686	B	19980909	
	DE 19518449	A1	19951130	DE 1995-19518449
19950519	JP 08059994	A	19960305	JP 1995-120294
19950519	JP 4153566	B2	20080924	
	FR 2720401	A1	19951201	FR 1995-6094
19950523	FR 2720401	B1	19990924	
PRI ORI TY APPLN. I NFO. :			US 1994-250124	A2
19940527			US 1994-321640	A2
19941011			US 1995-385293	A
19950210				

TI Method of preparing microemulsions of amino silicone fluids and MQ resin mixtures

AB Microemulsion compns. comprising MQ resins and microemulsifiable amino silicone fluids or gums and a surfactant having a high phase inversion temperature, the microemulsions formed therewith, a means for preparing said microemulsions, and personal care products comprising said microemulsions are disclosed. While warming to 70°, 16 parts of an aminofunctional silicone (linear, trimethylsilyl terminated, $-(CH_2)_3-NH-CH_2-CH_2-NH_2$, viscosity of 150 to 400 cSt, amine content of 0.12 meq/gr.) was mixed with 8 parts Tergitol TMN-6. Part I water (16 parts) was then added dropwise at 70° after water addition was complete, 1 part of acetic acid was added. The mixture thickened and became translucent Part II water (58 parts) was then added rapidly with good agitation. Upon cooling, a microemulsion having an ATM haze number of about 40 was obtained. A conditioning or 2 in 1 shampoo was prepared from the following components: deionized water 33.89, hydroxyethyl cellulose 2.0, ammonium lauryl sulfate 15.38 (as 26% solution), ammonium laureth sulfate 21.43 (as 28% solution), cocamidopropyl betaine 11.43 (as a 35% solution), Dowicil 200 0.2, silicone microemulsion 5.0, citric acid q.s. to adjust pH, lauramide DEA 3.5, cetrimonium chloride 6.67, fragrance 0.5%

ST microemulsion amino silicone fluid MQ resin

IT Resins

RL: RCT (Reactant); RACT (Reactant or reagent)

(MQ, method of preparing microemulsions of amino silicone fluids and MQ resin mixts.)

IT Polysiloxanes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(amino; method of preparing microemulsions of amino silicone fluids and MQ resin mixts.)

IT Hair preparations

(conditioners; method of preparing microemulsions of amino silicone fluids and MQ resin mixts.)

IT Shampoos

(conditioning; method of preparing microemulsions of amino silicone fluids and MQ resin mixts.)

IT Particle size

Surfactants

(method of preparing microemulsions of amino silicone fluids
and MQ resin mixts.)

IT Emulsions
(microemulsions; method of preparing microemulsions of amino
silicone fluids and MQ resin mixts.)

IT 51229-78-8, Dowicil 200 60828-78-6, Tergitol TMN-6.
RL: BUU (Biological use, unclassified); BICL (Biological study);

USES
(Uses)
(method of preparing microemulsions of amino silicone fluids
and MQ resin mixts.)

IT 50-21-5, Lactic acid, reactions 64-18-6, Formic acid,
reactions
64-19-7, Acetic acid, reactions 79-09-4, Propionic acid,
reactions
79-14-1, Glycolic acid, reactions 2235-54-3, Ammonium lauryl
sulfate
7647-01-0, Hydrochloric acid, reactions 7697-37-2, Nitric
acid,
reactions 7803-60-3, Hypophosphoric acid 9002-93-1, Triton
x405

9004-98-2, C12H25 32612-48-9, Ammonium lauryl sulfate
RL: RCT (Reactant); RACT (Reactant or reagent)
(method of preparing microemulsions of amino silicone fluids
and MQ resin mixts.)

AB Microemulsion compns. comprising MQ resins and microemulsifiable
amino silicone fluids or gums and a surfactant having a high
phase inversion temperature, the microemulsions formed
therewith, a means for preparing said microemulsions, and
personal care products comprising said microemulsions are
disclosed. While warming to 70°, 16 parts of an aminofunctional
silicone (linear, trimethylsilyl terminated, $-(CH_2)_3-NH-CH_2-CH_2$
 $-NH_2$, viscosity of 150 to 400 cSt, amine content of 0.12
meq/gr.) was mixed with 8 parts Tergitol TMN-6. Part I water
(16 parts) was then added dropwise at 70° after water addition
was complete, 1 part of acetic acid was added. The mixture
thickened and became translucent Part II water (58 parts) was
then added rapidly with good agitation. Upon cooling, a
microemulsion having an ATM haze number of about 40 was
obtained. A conditioning or 2 in 1 shampoo was prepared from
the following components: deionized water 33.89, hydroxyethyl
cellulose 2.0, ammonium lauryl sulfate 15.38 (as 26% solution),
ammonium lauryl sulfate 21.43 (as 28% solution), cocamidopropyl
betaine 11.43 (as a 35% solution), Dowicil 200 0.2, silicone
microemulsion 5.0, citric acid q.s. to adjust pH, lauramide DEA
3.5, cetrimonium chloride 6.67, fragrance 0.5%

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L3 ANSWER 22 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:869936 CAPLUS Full-text
DOCUMENT NUMBER: 135:6894

TITLE: Electrolyte stability of silicone-acrylic emulsions
 AUTHOR(S): Sun, Zhongxin; Li, Jihang; Li, Yi; Pan, Qing; Liu, Jixian; Ding, Wenguang
 CORPORATE SOURCE: Institute, Shandong Qilu Petrochemical Co., 255400, Peop. Rep. China
 SOURCE: Tuli ao Gongye (2000), 30(10), 6-8
 CODEN: TLKYD5; ISSN: 0253-4312
 PUBLISHER: Huagongbu Tuli ao Gongye Yanjiuso
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

TI Electrolyte stability of silicone-acrylic emulsions

AB Emulsions were prepared by core-shell emulsion polymerization and phase inversion from mixts. of silicone macromols., Me methacrylate, Bu methacrylate, Bu acrylate, and acrylic acid. Mixts. of anionic and nonionic emulsifiers improved the polymerization stability and electrolyte stability. Increasing the ratio of hard monomers and decreasing the amount of carboxy monomers improved the electrolyte stability.

ST silicone acrylic emulsion electrolyte stability; vinyl macromol silicone copolymer emulsion

IT Coating materials
Electrolytes

(electrolyte stability of silicone-acrylic emulsions)

IT Polymerization
(inverse emulsion; electrolyte stability of silicone-acrylic emulsions)

IT Polysiloxanes, properties

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(macromol., polymers with acrylic monomers; electrolyte stability of silicone-acrylic emulsions)

IT Macromonomers

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(silicone, polymers with acrylic monomers; electrolyte stability of silicone-acrylic emulsions)

IT 51981-89-6DP, Acrylic acid-Butyl acrylate-Butyl methacrylate-Methyl

methacrylate copolymer, polymers with silicone macromol.

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(electrolyte stability of silicone-acrylic emulsions)

AB Emulsions were prepared by core-shell emulsion polymerization and phase inversion from mixts. of silicone macromols., Me methacrylate, Bu methacrylate, Bu acrylate, and acrylic acid. Mixts. of anionic and nonionic emulsifiers improved the polymerization stability and electrolyte stability. Increasing the ratio of hard monomers and decreasing the amount of carboxy monomers improved the electrolyte stability.

PATENT INFORMATION:

RL: POF (Polymer in formation); TEM (Technical or engineered

material
use); USES (Uses)
(production method of amino-modified silicone emulsions)

IT 24938-91-8, Polyoxyethylene tridecyl ether 26183-52-8,
Polyoxyethylene
decyl ether

RL: TEM (Technical or engineered material use); USES (Uses)
(production method of amino-modified silicone emulsions)

AB The title method comprises adding phase inversion water to mixts. of amino-modified silicones and nonionic surfactants and causing phase transition under high shear from water-in-oil type to oil-in-water type emulsions, performing a first kneading of the nonfluid gels which are obtained, then adding aqueous acidic solns. to the first kneaded material and obtaining a concentrated paste of viscosity (25°) 1,000-10,000,000 cP, performing a second kneading, and optionally adding and mixing in dilution water. The amino-modified siloxanes comprise $R_{33}Si(O(SiR_{12}O)_m(SiR_1R_2O)_nSiR_{33})$ [R1 = C1-20 monovalent organic group; R2 = R4(NR5R6)pNR7R8; R4 = C1-6 alkylene; R5, R7, R8 = H, C1-10 monovalent organic group; R6 = C1-4 alkylene; p = 0-6; R3 = R1, R2, OR9; R9 = H, C1-6 alkylene]. The emulsions have good stability to shearing during dilution

L3 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:742053 CAPLUS Full-text

DOCUMENT NUMBER: 130:29038

TITLE: Silicone emulsions for hair preparations

INVENTOR(S): Horie, Yutaka; Sato, Akinori

PATENT ASSIGNEE(S): Toshiba Silicone Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM COUNT: 1

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
-----	-----	----	-----	-----
19970507	JP 10306013	A	19981117	JP 1997-116775
	JP 3367863	B2	20030120	
PRIORITY APPLN. INFO:				JP 1997-116775

TI Silicone emulsions for hair preparations

AB Oil-in-water silicone emulsions are obtained by mixing polyorganosiloxanes with surfactants, followed by adding water to the point of phase inversion and further diluting the blend with water. The obtained product contains particles with a controlled size and remains stable. A milky white emulsion containing polydimethylsiloxane (200 cSt at 25°) 36, polydimethylsiloxane (2+107 cSt at 25°) 24, polyoxyethylene

lauryl ether 1.2, polyoxyethylene monostearate 3.8, water for phase inversion (70°) 7, and water 35 % was prepared. A shampoo contained the above emulsion 3, polyoxyethylene lauryl ether 15, lauric acid diethanolamide 5, perfumes 0.2, and deionized water 76.8 %

ST shampoo silicone surfactant emulsion

IT Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); BICL (Biological study);

USES

(Uses)

(amino-containing; silicone emulsions for hair preps.)

IT Hair preparations

Shampoos

(silicone emulsions for hair preps.)

IT Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); BICL (Biological study);

USES

(Uses)

(silicone emulsions for hair preps.)

IT 112-02-7, Cetyltrimethyl ammonium chloride 9002-92-0 9004-99-3,

sorbitan polyoxyethylene monostearate 9005-67-8, polyoxyethylene

monostearate 9016-00-6, dimethylsilanediol homopolymer 31900-57-9,

dimethylsilanediol homopolymer

RL: BUU (Biological use, unclassified); BICL (Biological study);

USES

(Uses)

(silicone emulsions for hair preps.)

AB Oil-in-water silicone emulsions are obtained by mixing polyorganosiloxanes with surfactants, followed by adding water to the point of phase inversion and further diluting the blend with water. The obtained product contains particles with a controlled size and remains stable. A milky white emulsion containing polydimethylsiloxane (200 cSt at 25°) 36, polydimethylsiloxane (2+107 cSt at 25°) 24, polyoxyethylene lauryl ether 1.2, polyoxyethylene monostearate 3.8, water for phase inversion (70°) 7, and water 35 % was prepared. A shampoo contained the above emulsion 3, polyoxyethylene lauryl ether 15, lauric acid diethanolamide 5, perfumes 0.2, and deionized water 76.8 %

L3 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:134973 CAPLUS Full-text

DOCUMENT NUMBER: 128:286692

ORIGINAL REFERENCE NO.: 128:56661a, 56664a

TITLE: Emulsions and equilibrium phase behavior in silicone oil + water + nonionic surfactant mixtures

AUTHOR(S): Binks, B. P.; Dong, J.

CORPORATE SOURCE: School of Chemistry, Surfactant Science Group,

SOURCE: University of Hull, Hull, HU6 7RX, UK
and Colloids and Surfaces, A: Physicochemical

CODEN: CPEAEH; ISSN: 0927-7757

PUBLISHER: Elsevier Science B. V.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Emulsions and equilibrium phase behavior in silicone oil + water + nonionic surfactant mixtures

AB Several aspects of the emulsion and equilibrium phase behavior of mixts. of water, non-ionic surfactant (OnEm) and silicone oil (PDMS) have been studied. Emulsions may be inverted from oil-in-water to water-in-oil on increasing the temperature or the concentration of NaCl electrolyte. The apparent phase inversion temperature (PIT) increases with an increase in the number of oxyethylene groups in the surfactant (Em), and decreases with increasing surfactant alkyl chain length (On). The PIT also decreases on adding NaCl but increases on adding tetrabutyl ammonium bromide as electrolyte. Emulsions were very unstable to coalescence around the conditions of phase inversion using C12E3. For systems containing equal vols. of water and oil at equilibrium, two phase-three phase-two phase transitions are seen for certain surfactants. The extent of solubilization of PDMS into surfactant aggregates containing these hydrogenated surfactants however is quite low (<3 volume). The composition of the third phase changes from mainly surfactant+water in the case of C12E3 to mainly surfactant + oil in the case of the surfactant C16P8E1 (P being a propyleneoxide group). Ests. of the monomeric solubility of surfactant in PDMS at different temps. are given.

ST emulsion equil phase inversion nonionic surfactant; water silicone oil nonionic surfactant mixt

IT Chemical chains
Electric conductivity

Emulsions

Phase transition

Solubilization

(emulsions and equilibrium phase behavior in silicone oil + water + nonionic surfactant mixts.)

IT Polysiloxanes, properties

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(emulsions and equilibrium phase behavior in silicone oil + water + nonionic surfactant mixts.)

IT Surfactants

(nonionic; emulsions and equilibrium phase behavior in silicone oil + water + nonionic surfactant mixts.)

IT 3055-93-4 3055-94-5 3055-95-6, 3, 6, 9, 12, 15-

Pentaoxaheptacosan-1-ol

3055-96-7, C12E6 5274-68-0, C12E4 7732-18-5, Water,

properties

23244-49-7, C10E5 37311-01-6 92669-01-7,

3, 6, 9, 12, 15- Pentaoxanonacosan-1-ol

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(emulsions and equilibrium phase behavior in silicone

oil + water + nonionic surfactant mixts.)

AB Several aspects of the emulsion and equilibrium phase behavior of mixts. of water, non-ionic surfactant (OnEm) and silicone oil (PDMS) have been studied. Emulsions may be inverted from oil-in-water to water-in-oil on increasing the temperature or the concentration of NaCl electrolyte. The apparent phase inversion temperature (PIT) increases with an increase in the number of oxyethylene groups in the surfactant (Em), and decreases with increasing surfactant alkyl chain length (On). The PIT also decreases on adding NaCl but increases on adding tetrabutyl ammonium bromide as electrolyte. Emulsions were very unstable to coalescence around the conditions of phase inversion using C12E3. For systems containing equal vols. of water and oil at equilibrium, two phase-three phase-two phase transitions are seen for certain surfactants. The extent of solubilization of PDMS into surfactant aggregates containing these hydrogenated surfactants however is quite low (<3 volume). The composition of the third phase changes from mainly surfactant+water in the case of C12E3 to mainly surfactant + oil in the case of the surfactant C16P8E1 (P being a propyleneoxide group). Ests. of the monomeric solubility of surfactant in PDMS at different temps. are given.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES
 AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L3 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1997:559670 CAPLUS Full-text
 DOCUMENT NUMBER: 127:264576
 ORIGINAL REFERENCE NO.: 127:51641a, 51644a
 TITLE: Preparation of miniemulsions
 AUTHOR(S): Su, Xiaoyan; Dai, Lerong
 CORPORATE SOURCE: Inst. Phys. Chem., Peking Univ., Beijing,
 100871,
 Peop. Rep. China
 SOURCE: Wuli Huaxue Xuebao (1997), 13(8), 741-746
 CODEN: WHXUEU; ISSN: 1000-6818
 PUBLISHER: Beijing Daxue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB For the prepn. of oil-water (O/W) miniemulsions contg. soybean oil and silicone oil, three methods, phase inversion emulsification, D-phase emulsification, and reformed D-phase emulsification were tested by using Brij 92, 97, 98 and Tween 80, 85, 60, 20 and Span 80, 60 mixed surfactants. The O/W miniemulsions of soybean oil and silicone oil can not be formed by phase inversion emulsification method, but can be formed by the other two methods. The results of emulsification showed that if gel emulsion, in which fine oil droplets disperse in continuous phase with high surfactant content, appears during the emulsification process, the O/W miniemulsions can be formed by simply diluting with water.

ST miniemulsion prepn surfactant emulsification; soybean oil
 miniemulsion
 prepn; silicone oil miniemulsion prepn
 IT Surfactants

(nonionic; preparation of soybean oil and silicone oil miniemulsions in presence of)

IT Emulsions
(preparation of soybean oil and silicone oil miniemulsions in presence of nonionic surfactants)

IT Polysiloxanes, preparation
Soybean oil
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of soybean oil and silicone oil miniemulsions in presence of surfactants)

IT 56-81-5, Glycerol, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of soybean oil and silicone oil miniemulsions in presence of nonionic surfactants)

IT 1338-41-6, Span 60 1338-43-8, Span 80 9004-98-2 9005-64-5, Tween 20
9005-65-6, Tween 80 9005-67-8, Tween 60 9005-70-3, Tween 85
RL: TEM (Technical or engineered material use); USES (Uses)
(surfactants; preparation of soybean oil and silicone oil miniemulsions in presence of)

AB For the prepn. of oil-water (O/W) miniemulsions containing soybean oil and silicone oil, three methods, phase inversion emulsification, D-phase emulsification, and reformed D-phase emulsification were tested by using Brij 92, 97, 98 and Tween 80, 85, 60, 20 and Span 80, 60 mixed surfactants. The O/W miniemulsions of soybean oil and silicone oil can not be formed by phase inversion emulsification method, but can be formed by the other two methods. The results of emulsification showed that if gel emulsion, in which fine oil droplets disperse in continuous phase with high surfactant content, appears during the emulsification process, the O/W miniemulsions can be formed by simply diluting with water.

L3 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:722560 CAPLUS Full-text

DOCUMENT NUMBER: 126:11413

ORIGINAL REFERENCE NO.: 126:2363a, 2366a

TITLE: Microemulsions of high-viscosity amino
silicone fluids and gums and their

preparation

INVENTOR(S): Berthiaume, Marianne D.; Merrifield, James H.

PATENT ASSIGNEE(S): General Electric Company, USA

SOURCE: U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 250,124.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM COUNT:

3

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
-----	-----	----	-----	-----
-----	US 5578298	A	19961126	US 1994-321640

19941011				
US 5683625	A	19971104	US 1994- 250124	
19940527				
US 6180117	B1	20010130	US 1995- 385293	
19950210				
GB 2289686	A	19951129	GB 1995- 9168	
19950505				
GB 2289686	B	19980909		
DE 19518449	A1	19951130	DE 1995- 19518449	
19950519				
JP 08059994	A	19960305	JP 1995- 120294	
19950519				
JP 4153566	B2	20080924		
FR 2720401	A1	19951201	FR 1995- 6094	
19950523				
FR 2720401	B1	19990924		
PRI ORI TY APPLN. I NFO. :			US 1994- 250124	A2
19940527			US 1994- 321640	A2
19941011			US 1995- 385293	A

19950210

TI Microemulsions of high-viscosity amino silicone fluids and gums and their preparation

AB Transparent microemulsion compns. comprising microemulsifiable high-viscosity amino silicone fluids or gums and a surfactant having a high phase-inversion temperature are provided for use in personal care products. Thus, a microemulsion containing 20 weight% linear Me₃Si-terminated, pendant H₂NCH₂CH₂NH(CH₂)₃-containing silicone fluid (viscosity 150 cSt at 25°, amino content 0.55 mequiv/g) was used to prepare a conditioning shampoo containing deionized water 33.89, hydroxyethyl cellulose 2.0, 26% ammonium lauryl sulfate solution 15.38, 28% ammonium laureth sulfate solution 21.43, 35% coco aminopropyl betaine solution 11.43, Dowicil 200 0.2, silicone microemulsion 5.0, lauramide DEA 3.5, cetrimonium chloride 6.67, fragrance 0.5 weight%, and citric acid to adjust the pH.

ST amino silicone microemulsion cosmetic

IT Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study);

USES

(Uses)

(amino-containing; microemulsions of high-viscosity amino silicone fluids and gums)

IT Cosmetics

Hair preparations

(conditioners; microemulsions of high-viscosity amino silicone fluids and gums)

IT Shampoos

(conditioning; microemulsions of high-viscosity amino silicone fluids and gums)

IT Surfactants

(microemulsions of high-viscosity amino silicone fluids and gums)

IT Cosmetics
Cosmetics
Emulsions
(microemulsions; microemulsions of high-viscosity amino
silicone fluids and gums)

IT 156623-21-1

RL: BUU (Biological use, unclassified); BICL (Biological study);

USES

(Uses)

(microemulsions of high-viscosity amino silicone fluids and
gums)

AB Transparent microemulsion compns. comprising microemulsifiable
high-viscosity amino silicone fluids or gums and a surfactant
having a high phase-inversion temperature are provided for use
in personal care products. Thus, a microemulsion containing 20
weight% linear Me₃Si-terminated, pendant H₂NCH₂CH₂NH(CH₂)₃-
containing silicone fluid (viscosity 150 cSt at 25°, amino
content 0.55 mequiv/g) was used to prepare a conditioning
shampoo containing deionized water 33.89, hydroxyethyl cellulose
2.0, 26% ammonium lauryl sulfate solution 15.38, 28% ammonium
laureth sulfate solution 21.43, 35% coco aminopropyl betaine
solution 11.43, Dowicil 200 0.2, silicone microemulsion 5.0,
lauramide DEA 3.5, cetrimonium chloride 6.67, fragrance 0.5
weight% and citric acid to adjust the pH.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L3 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:628564 CAPLUS Full-text

DOCUMENT NUMBER: 125:256798

ORIGINAL REFERENCE NO.: 125:47795a, 47798a

TITLE: Transparent microemulsions for cosmetic or
dermatological use

INVENTOR(S): Schreiber, Joerg; Klier, Manfred; Wolf,
Florian;

Eitrich, Anja; Gohla, Sven

PATENT ASSIGNEE(S): Beiersdorf A.-G., Germany

SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM COUNT: 1

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
-----	-----	----	-----	-----
-----	DE 19509079	A1	19960919	DE 1995-19509079
19950315	WO 9628131	A2	19960919	WO 1996-EP968
19960307	WO 9628131	A3	19961107	
	W JP, US			
	RW AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,			

NL, PT, SE				
EP 814752	A2	19980107	EP 1996- 907378	
19960307				
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 11501641	T	19990209	JP 1996- 527247	
19960307				
WO 9628132	A2	19960919	WO 1996- EP1088	
19960314				
WO 9628132	A3	19961107		
W JP, US				
RW AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,				
NL, PT, SE				
EP 814753	A2	19980107	EP 1996- 907466	
19960314				
EP 814753	B1	20021113		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 11501645	T	19990209	JP 1996- 527280	
19960314				
AT 227556	T	20021115	AT 1996- 907466	
19960314				
ES 2185766	T3	20030501	ES 1996- 907466	
19960314				
DE 19629951	A1	19980129	DE 1996- 19629951	
19960725				
EP 820758	A2	19980128	EP 1997- 111504	
19970708				
EP 820758	A3	20001011		
EP 820758	B1	20060118		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,				
MC, PT,				
IE, FI				
AT 315928	T	20060215	AT 1997- 111504	
19970708				
ES 2256868	T3	20060716	ES 1997- 111504	
19970708				
US 6607733	B1	20030819	US 1998- 930404	
19980120				
PRI ORI TY APPLN. I NFO. :			DE 1995- 19509079	A
19950315			WO 1996- EP968	W
19960307			WO 1996- EP1088	W
19960314			DE 1996- 19629951	A
19960725				

AB Oil-in-water emulsions with low emulsifier content (<20 wt. % which are transparent at room temperature are prepared by heating a mixture of the components to a temperature around or above the phase inversion temperature and subsequently cooling to room temperature. The emulsifier is ≥ 1 of an ethoxylated or propoxylated fatty alc., fatty acid, sorbitan ester, or glyceride, an alkyl ether carboxylic or sulfonic acid or salt, a sugar ester, or a dimethicone copolyol. Thus, a deodorant composition contained glyceryl isostearate 1.800, ethoxylated cetyl stearyl alc. 5.200, sorbitol 2.900, isotridecyl isononanoate 10.000, glycerin monocaprato 0.100, Al

chlorohydrate 3.883, perfume, antioxidants, and H₂O to 100.000 weight %

IT Siloxanes and Silicones, biological studies
 RL: BUU (Biological use, unclassified); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (di-Me, Me hydrogen, polyoxalkylene-, transparent
 microemulsions for
 cosmetic or dermatol. use)

IT Emulsions
 (micro-, oil-in-water, transparent microemulsions for
 cosmetic or
 dermatol. use)

AB Oil-in-water emulsions with low emulsifier content (<20 weight %) which are transparent at room temperature are prepared by heating a mixture of the components to a temperature around or above the phase inversion temperature and subsequently cooling to room temperature. The emulsifier is ≥1 of an ethoxylated or propoxylated fatty alc., fatty acid, sorbitan ester, or glyceride, an alkyl ether carboxylic or sulfonic acid or salt, a sugar ester, or a dimethicone copolyol. Thus, a deodorant composition contained glyceryl isostearate 1.800, ethoxylated cetyl stearyl alc. 5.200, sorbitol 2.900, isotridecyl isononanoate 10.000, glycerin monocaprato 0.100, Al
 chlorohydrate 3.883, perfume, antioxidants, and H₂O to 100.000 weight %

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L3 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1996:57865 CAPLUS Full-text
 DOCUMENT NUMBER: 124:179472
 ORIGINAL REFERENCE NO.: 124:33225a, 33228a
 TITLE: Studies on the preparation of silicone emulsions using mixed surfactants and their stability

AUTHOR(S): Lee, Dong-Yoel; Jung, Chang-Nam; Suh, Kyung-Do; Choi, Hyeong-Ki; Park, Young-Hun

CORPORATE SOURCE: Coll. Eng., Hanyang Univ., Seoul, 133-791, S. Korea

SOURCE: Kongop Hwahak (1995), 6(6), 1124-33
 CODEN: KCHWE9; ISSN: 1225-0112

PUBLISHER: Korean Society of Industrial and Engineering Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Studies on the preparation of silicone emulsions using mixed surfactants and their stability

AB Silicone was emulsified using nonionic surfactants, an anionic surfactant, and cosmetic surfactants with co-surfactants (long-chain alcs.) through phase inversion emulsification. When the nonionic surfactants, SPAN and TWEEN series, were used as emulsifiers, silicone emulsions with a centrifugal stability of

85.2-91.2% could be prepared between HLB 13 and 14. When the anionic surfactant SLS and cosurfactants were used for emulsifying silicone, relatively stable emulsions could be prepared with stability of 94%. Silicone emulsions prepared using the cosmetic nonionic surfactants ARLACEL-60 and BRIJ-58 showed a stability of 90.7%. Stable emulsions had the smallest particle size.

- ST silicone emulsifying agent anionic nonionic
 IT Siloxanes and Silicones, uses
 RL: POF (Polymer in formulation); USES (Uses)
 (emulsifying agents for silicones)
 IT Particle size
 (in silicone emulsion stability)
 IT Emulsifying agents
 (anionic, for silicones)
 IT Alcohols, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (long-chain, cosurfactants; emulsifying agents for silicones)
 IT Emulsifying agents
 (nonionic, for silicones)
 IT 112-92-5, Stearyl alcohol 36653-82-4, Cetyl alcohol
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cosurfactant; emulsifying agents for silicones)
 IT 151-21-3, Sodium lauryl sulfate, uses 1338-39-2, Span 20
 1338-41-6,
 Span 60 9004-95-9, Brij 58 26266-57-9, Span 40
 RL: TEM (Technical or engineered material use); USES (Uses)
 (emulsifying agents for silicones)
 AB Silicone was emulsified using nonionic surfactants, an anionic surfactant, and cosmetic surfactants with co-surfactants (long-chain alcs.) through phase inversion emulsification. When the nonionic surfactants, SPAN and TWEEN series, were used as emulsifiers, silicone emulsions with a centrifugal stability of 85.2-91.2% could be prepared between HLB 13 and 14. When the anionic surfactant SLS and cosurfactants were used for emulsifying silicone, relatively stable emulsions could be prepared with stability of 94%. Silicone emulsions prepared using the cosmetic nonionic surfactants ARLACEL-60 and BRIJ-58 showed a stability of 90.7%. Stable emulsions had the smallest particle size.

L3 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:663258 CAPLUS Full-text

DOCUMENT NUMBER: 121:263258

ORIGINAL REFERENCE NO.: 121:47911a, 47914a

TITLE: Calculation of optimum emulsifier mixtures
 for

phase inversion emulsification

AUTHOR(S): Foerster, Th.; Von Rybinski, W.; Tesmann,
 H.; Wädle,

A.

CORPORATE SOURCE: Henkel KGaA, Duesseldorf, D-40191, Germany
 SOURCE: International Journal of Cosmetic Science
 (1994),

16(2), 84-92

CODEN: IJCMDW ISSN: 0142-5463

DOCUMENT TYPE: Journal
LANGUAGE: English

TI Calculation of optimum emulsifier mixtures for phase inversion emulsification

AB The phase inversion emulsification is a convenient method of preparing fine-disperse and long-term stable oil-in-water emulsions, which are stabilized with nonionic emulsifiers. On the basis of EACN-values (equivalent alkane carbon nos.) the calcn. of phase inversion in concs. (CAPI CO) is possible, which yields emulsifier and oil mixing ratios corresponding to a given phase inversion temperature (PIT). The CAPI CO-method is illustrated for the example of a cosmetic oil-in-water lotion containing an oil mixture, glyceryl monostearate and a fatty alc. ethoxylate. Of special interest is the influence of silicone oils on the PIT. At a constant emulsifier oil ratio the complete phase behavior of this emulsion system is represented in a temperature/water content graph. Optimum emulsification results are obtained if during PIT emulsification a microemulsion or a lamellar phase is passed. The emulsions were characterized by particle sizing, and emulsion stability against sedimentation was evaluated by ultrasonic velocity changes. A fine-disperse and long-term stable oil-in-water emulsion was prepared by a time and energy-saving two-step hot-cold process.

ST cosmetic emulsifier phase inversion

IT Emulsifying agents
(calcn. of optimum emulsifier mixts. for phase inversion emulsification)

IT Siloxanes and Silicones, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BICL (Biological study); USES (Uses)

(calcn. of optimum emulsifier mixts. for phase inversion emulsification)

IT Emulsification
(phase inversion; calcn. of optimum emulsifier mixts. for phase inversion emulsification)

IT Cosmetics
(emulsions, calcn. of optimum emulsifier mixts. for phase inversion emulsification)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BICL (Biological study); USES (Uses)

(fatty, ethoxylated, calcn. of optimum emulsifier mixts. for phase inversion emulsification)

AB The phase inversion emulsification is a convenient method of preparing fine-disperse and long-term stable oil-in-water emulsions, which are stabilized with nonionic emulsifiers. On the basis of EACN-values (equivalent alkane carbon nos.) the calcn. of phase inversion in concs. (CAPI CO) is possible, which yields emulsifier and oil mixing ratios corresponding to a given phase inversion temperature (PIT). The CAPI CO-method is illustrated for the example of a cosmetic oil-in-water lotion containing an oil mixture, glyceryl monostearate and a fatty alc. ethoxylate. Of special interest is the influence of silicone oils on the PIT. At a constant emulsifier oil ratio

the complete phase behavior of this emulsion system is represented in a temperature/water content graph. Optimum emulsification results are obtained if during PIT emulsification a microemulsion or a lamellar phase is passed. The emulsions were characterized by particle sizing, and emulsion stability against sedimentation was evaluated by ultrasonic velocity changes. A fine-disperse and long-term stable oil-in-water emulsion was prepared by a time and energy-saving two-step hot-cold process.

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N HOLD: y

(FILE 'HOME' ENTERED AT 17:11:18 ON 29 JUN 2009)

FILE 'CAPLUS' ENTERED AT 17:11:30 ON 29 JUN 2009

L1 0 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON EMULSION AND
PHASE

L2 968 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON EMULSION AND
PHASE

L3 35 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON L2 AND
SILICONE

D 20-30 IBI B HIT ABS
COST IN U. S. DOLLARS SINCE FILE
TOTAL ENTRY

SESSION
FULL ESTIMATED COST 59.34
59.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE
TOTAL ENTRY

SESSION
CA SUBSCRIBER PRICE - 9.02 -
9.02

STN INTERNATIONAL LOGOFF AT 17:14:06 ON 29 JUN 2009